

CLAIMS

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1 1. A network communication system for communicating information between a
2 point of origin and a point of destination using a pass-through mode of
3 tunneling through a packet switching network comprising:

4 a first network access server coupled to the point of destination for
5 communicating therebetween through a public switching telephone
6 network and responsive to information from a second network access
7 server originating at a point of origin through the public switching
8 telephone network, said first network access server and said second
9 network access server communicating therebetween through a packet
10 switching network; and

11 a lab network access server coupled to the first network access server
12 through the packet switching network and to the second network access
13 server through the packet switching network, upon the point of origin
14 establishing a call to the point of destination, through the second network
15 access server and upon the second network access server failing to
16 successfully communicate with the first network access server, said lab
17 network access server responsive to a succeeding call from the second
18 network access server using a pass-through mode of tunneling, through the
19 packet switching network and terminating the succeeding call thereby
20 allowing diagnosis and debugging of the failure associated with the second
21 network access server at the location of the lab network access server.

- 1 2. A network communication system, as recited in claim 1, wherein said first
2 network access server includes a first modem device.

- 1 3. A network communication system, as recited in claim 1, wherein said second
2 network access server includes a second modem device.

1 4. A network communication system, as recited in claim 1, wherein said first
2 network access server includes a first modem device.

1 5. A network communication system, as recited in claim 1, wherein said lab
2 network access server includes a first lab network access server modem for
3 terminating the succeeding call.

1 6. A network communication system, as recited in claim 5, wherein said network
2 access server includes a second lab network access server modem for
3 processing the information received through the packet switching network.

1 7. In a packet switching network environment employing a customer network
2 access server, including a customer modem, coupled to a lab network access
3 server, through a packet switching network, and to a first network access
4 server, through a packet switching network, said lab network access being
5 remotely located to the customer network access server, said packet switching
6 network environment causing communications between a point of origin and a
7 point of destination, a method of diagnosing problems associated with the
8 customer modem comprising:

9 establishing a call from the point of origin to the point of destination,
10 through the customer network access server and the first network access
11 server;

12 failing to successfully communicate with the first network access
13 server;

14 establishing a succeeding call from the customer network access server
15 to the lab network access server using a pass-through mode of tunneling
16 and through the packet switching network;

17 terminating the succeeding call; and

18 allowing for diagnosis and debugging of the failure associated with the
19 customer network access server at the location of the lab network access
20 server.

- 1 8. In a packet switching network environment employing a customer network
2 access server, including a customer modem, coupled to a lab network access
3 server, through a packet switching network, and to a first network access
4 server, through a packet switching network, said lab network access being
5 remotely located to the customer network access server, said packet switching
6 network environment causing communications between a point of origin and a
7 point of destination, a method of diagnosing problems associated with the
8 customer modem comprising:

9 establishing a call from the point of origin to the point of destination,
10 through the customer network access server and the first network access
11 server;

12 failing to successfully communicate with the first network access
13 server;

14 establishing a succeeding call, including voice signals, from the
15 customer network access server to the lab network access server using a
16 relay mode of tunneling and through the packet switching network wherein
17 the voice signals are demodulated;

18 terminating the succeeding call; and

19 allowing for diagnosis and debugging of the failure associated with the
20 customer network access server at the location of the lab network access
21 server.

- 1 9. A computer readable medium having stored therein computer readable
2 program code comprising instructions for performing the following steps:

3 providing a lab network access server coupled to a customer network
4 access server, including a customer modem, through a packet switching network,

5 said lab network access server and said customer network access server further
6 coupled to a first network access server, through the packet switching network and
7 said lab network access being remotely located to the customer network access
8 server, said customer network access server for facilitating information between a
9 point of origin and a point of destination;

10 establishing a call from the point of origin to the point of destination,
11 through the customer network access server and the first network access
12 server;

13 failing to successfully communicate with the first network access
14 server;

15 establishing a succeeding call from the customer network access server
16 to the lab network access server using a pass-through mode of tunneling
17 and through the packet switching network;

18 terminating the succeeding call; and

19 allowing for diagnosis and debugging of the failure associated with the
20 customer network access server at the location of the lab network access
21 server.

1 10. A computer readable medium having stored therein computer readable
2 program code comprising instructions for performing the following steps:

3 providing a lab network access server coupled to a customer network
4 access server, including a customer modem, through a packet switching network,
5 said lab network access server and said customer network access server further
6 coupled to a first network access server, through the packet switching network and
7 said lab network access being remotely located to the customer network access
8 server, said customer network access server for facilitating information between a
9 point of origin and a point of destination;

10 establishing a call from the point of origin to the point of destination,
11 through the customer network access server and the first network access
12 server;

13 failing to successfully communicate with the first network access
14 server;
15 establishing a succeeding call from the customer network access server
16 to the lab network access server using a relay mode of tunneling and
17 through the packet switching network;
18 terminating the succeeding call; and
19 allowing for diagnosis and debugging of the failure associated with the
20 customer network access server at the location of the lab network access
21 server.